

Textbook Alignment to the Utah Core – Algebra 1

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Name of Company and Individual Conducting Alignment: _____

A “Credential Sheet” has been completed on the above company/evaluator and is (Please check one of the following):

☐ On record with the USOE.

☐ The “Credential Sheet” is attached to this alignment.

Instructional Materials Evaluation Criteria (name and grade of the core document used to align): Algebra 1 Core Curriculum

Title: Algebra 1 ©2007 ISBN#: SE: 978-0-618-59402-3 TE: 978-0-618-59556-3

Publisher: McDougal Littell

Overall percentage of coverage in the *Student Edition (SE)* and *Teacher Edition (TE)* of the Utah State Core Curriculum: 100 %

Overall percentage of coverage in *ancillary materials* of the Utah Core Curriculum: N/A %

STANDARD I: Students will expand number sense to understand, perform operations, and solve problems with real numbers.				
Percentage of coverage in the <i>student and teacher edition</i> for Standard I: <u>100 %</u>		Percentage of coverage not in student or teacher edition, but covered in the <i>ancillary material</i> for Standard I: <u>N/A %</u>		
OBJECTIVES & INDICATORS		Coverage in <i>Student Edition (SE)</i> and <i>Teacher Edition (TE)</i> (pg #'s, etc.)	Coverage in <i>Ancillary Material</i> (titles, pg #'s, etc.)	<i>Not covered in TE, SE or ancillaries</i>
Objective 1.1: Represent real numbers as points on the number line and distinguish rational numbers from irrational numbers.				
a.	Define a rational number as a point on the number line that can be expressed as the ratio of two integers, and points that cannot be so expressed as irrational.	SE/TE: 111-112, 120		
b.	Classify numbers as rational or irrational, knowing that rational numbers can be expressed as terminating or repeating decimals and irrational numbers can be expressed as non-terminating, non-repeating decimals.	SE/TE: 111-112, 113-114, 116, 121, 124, 125, 129, 926		
d.	Classify <i>pi</i> and square roots of non-perfect square numbers as irrational.	SE/TE: 111-112, 113-114, 116, 121, 125, 926		
d.	Place rational and irrational numbers on a number line between two integers.	SE/TE: 112, 124		

Objective 1.2: Compute fluently and make reasonable estimates with rational and irrational numbers.				
a.	Simplify, add, subtract, multiply and divide expressions with square roots.	SE/TE: 718, 719-722, 723-726, 727, 734, 753, 755, 757, 760, 791, 826, 948		
b.	Evaluate and simplify numerical expressions containing rational numbers and square roots using the order of operations.	SE/TE: 8-11, 13, 26, 54, 84, 93, 107, 116, 744-746, 747-749, 750, 751-752, 756, 757, 948		
c.	Compute solutions to problems, represent answers in exact form, and determine the reasonableness of answers.	SE/TE: 55, 155, 164, 178, 182, 285, 371, 436, 508, 560, 564, 583, 594, 601, 606, 607, 654, 672, 679, 686, 730, 743, 746-747, 748-750, 751, 784-785, 796, 926		
d.	Calculate the measures of the sides of a right triangle using the Pythagorean Theorem.	SE/TE: 736, 737-739, 740-742, 743, 744, 750, 752, 756, 757, 759, 761, 907, 948		

STANDARD II: Students will extend concepts of proportion to represent and analyze linear relations.				
Percentage of coverage in the <i>student and teacher edition</i> for Standard II: <u>100 %</u>		Percentage of coverage not in student or teacher edition, but covered in the <i>ancillary material</i> for Standard II: <u>N/A %</u>		
OBJECTIVES & INDICATORS		Coverage in <i>Student Edition (SE) and Teacher Edition (TE)</i> (pg #'s, etc.)	Coverage in <i>Ancillary Material</i> (titles, pg #'s, etc.)	<i>Not covered in TE, SE or ancillaries</i>
Objective 2.1: Represent and analyze the slope of a line.				
a.	Identify the slope of a line when given points, a graph or an equation.	SE/TE: 235-238, 239-241, 243, 247-248, 250, 268, 273, 275, 279, 280, 284, 287, 289, 293, 296-297, 299, 300-301, 303-304, 306-307, 308, 311, 316, 324, 327, 331, 345-347, 349, 395, 457, 484, 501, 613, 941, 942		
b.	Identify horizontal and vertical lines given the equations or slopes.	SE/TE: 216-217, 219, 236-237, 239, 266, 312, 314		
c.	Determine the effect of changes in slope or y-intercept t in $y = mx + b$.	SE/TE: 238, 241, 243, 245-246, 248-249, 263-265, 266, 269, 270, 290-291		
d.	Determine and explain the meaning of slopes and intercepts using real-world examples.	SE/TE: 227-228, 231-232, 233, 234, 237-238, 240-241, 245, 268, 285, 288, 294-295, 296, 298, 300-301, 328, 330-331, 334, 343, 349, 352-353		

Objective 2.2 Model and interpret problems having a constant rate of change using linear functions.				
a.	Write algebraic expressions or equations to generalize visual patterns, numerical patterns, relations, data sets, or scatter plots.	SE/TE: 256, 257, 325-328, 328-331, 332-333, 334, 335-338, 338-341, 342, 343, 348, 349, 352-353, 520, 524, 531, 533, 535, 692-693		
b.	Represent linear equations in slope-intercept form, $y = mx + b$, and standard form, $Ax + By = C$.	SE/TE: 215-217, 219, 225-227, 229, 232, 243, 244-245, 247-248, 283-285, 286-289, 290-291, 292-295, 296-299, 308, 311-313, 314-316, 319-321, 322, 327, 331, 345-347, 349		
c.	Distinguish between linear and non-linear functions by examining a table, equation, or graph.	SE/TE: 520, 524, 526, 530, 531, 535, 540, 548, 684-687, 688-691, 694, 695, 700, 701, 705, 707, 947		
d.	Interpret the slope of a linear function as a rate of change in real-world situations.	SE/TE: 234, 237-238, 240-241, 245, 268, 285, 288, 294-295, 296, 298, 300-301, 328, 330-331, 334, 343, 349, 352-353		

Objective 2.3: Represent and analyze linear relationships using algebraic equations, expressions and graphs.			
a.	Write the equation of a line when given two points or the slope and a point on the line.	SE/TE: 283-285, 286-289, 291, 292-295, 296-297, 299, 302-304, 305-306, 308, 311, 314, 316, 319, 321, 322, 327, 341, 345-347, 349, 353, 395, 484, 501, 613, 942	
b.	Approximate the equation of a line given the graph of a line.	SE/TE: 327, 328-331, 332-333, 334, 335-337, 338-341, 342, 343, 348, 349, 352-353, 485, 734, 790, 942	
c.	Identify the x - and y -intercepts from an equation or graph of a line or a table of values.	SE/TE: 225-228, 229-232, 233, 242, 243, 244-245, 247, 250, 259, 272, 275, 279, 337-338, 339, 941	
d.	Graph linear relations and inequalities by plotting points, by finding x - and y intercepts, or by using the slope and any point on the line.	SE/TE: 215-218, 219-221, 222, 225-228, 229-232, 233, 244-246, 247-250, 251-252, 254, 257, 259, 260, 262-265, 265-268, 269, 270, 271-274, 275, 279, 290-291, 300, 303, 306, 308, 315, 333, 335, 337, 342, 403, 405-408, 409-412, 413, 418, 419, 422-423	

STANDARD III: Students will develop fluency with the language and operations of algebra to analyze and represent relationships.				
Percentage of coverage in the <i>student and teacher edition</i> for Standard III: <u>100 %</u>		Percentage of coverage not in student or teacher edition, but covered in the <i>ancillary material</i> for Standard III: <u>N/A %</u>		
OBJECTIVES & INDICATORS		Coverage in <i>Student Edition (SE)</i> and <i>Teacher Edition (TE)</i> (pg #'s, etc.)	Coverage in <i>Ancillary Material</i> (titles, pg #'s, etc.)	<i>Not covered in TE, SE or ancillaries</i>
Objective 3.1: Simplify polynomials and the quotient of monomials.				
a.	Simplify and evaluate monomial expressions and formulas.	SE/TE: 488, 489-491, 492-494, 495-498, 498-501, 543-544, 547, 548, 552, 580, 640, 649, 658, 706, 791, 800, 945		
b.	Add and subtract polynomials.	SE/TE: 552, 554-556, 557-559, 560, 574, 616, 621, 706, 800, 809, 946		
c.	Multiply monomials by a polynomial.	SE/TE: 96-98, 99-101, 120, 123, 125, 146, 150, 153, 167, 169, 171, 189, 193, 197, 202, 212, 221, 232, 250, 268, 368, 395, 559, 568, 640, 939, 940, 946		
d.	Multiply binomials.	SE/TE: 561, 562-565, 565-568, 569-571, 572-574, 580, 589, 599, 605, 617, 621, 622-623, 634, 706, 809, 946		
e.	Simplify the quotient of monomials using positive exponents.	SE/TE: 495-498, 498-501, 544, 547, 640, 649, 706, 800, 802, 806, 826, 945		

Objective 3.2: Solve and interpret linear equations and inequalities in various situations including real-world problems.				
a.	Solve single-variable linear equations and inequalities algebraically and graphically.	SE/TE: 132-133, 134-137, 137-140, 141-143, 144-146, 148-150, 150-153, 154-156, 157-159, 160, 161, 167, 173, 177-178, 179-180, 192-194, 197, 198, 200-201, 202, 221, 250, 268, 289, 299, 324, 341, 356-358, 359-361, 362, 363-365, 366-368, 369-371, 372-374, 377-378, 387, 395, 412, 415-416, 419, 465, 484, 501, 538, 574, 589, 605, 683, 706, 819, 906, 940		
b.	Solve real-world problems involving constant rates of change.	SE/TE: 234, 237-238, 240-241, 245, 268, 285, 288, 294-295, 296, 298, 300-301, 328, 330-331, 334, 343, 349, 352-353		
c.	Solve equations for a specified variable.	SE/TE: 184-186, 187-189, 191, 196, 197, 212, 245, 247, 268, 273, 940		
d.	Solve proportions that include algebraic first-degree expressions.	SE/TE: 163-164, 165-166, 168-170, 171-173, 174-175, 176, 179-180, 191, 195-196, 197, 199, 202, 250, 268, 324, 441, 668, 819, 940		

Objective 3.3: Solve and interpret pairs of linear equations and inequalities.				
a.	Solve systems of two linear equations graphically and algebraically with and without technology.	SE/TE: 426, 427-430, 430-433, 434, 435-438, 439-441, 442, 443, 444-446, 447-450, 451-454, 454-457, 458, 459-462, 462-465, 472, 473, 474, 475-478, 479, 480-481, 482-483, 485, 508, 568, 634, 706, 906, 944		
b.	Determine the number of possible solutions for a system of two linear equations.	SE/TE: 459-462, 462-465, 472, 473, 474, 478, 479, 482, 568, 706, 906, 944		
c.	Graph a system of linear inequalities and identify the solution.	SE/TE: 466-468, 469-472, 473, 474, 478, 479, 568, 580, 944		

Objective 3.4: Factor polynomials with common monomial factors and factor simple quadratic expressions.				
a.	Find the greatest common monomial factor of a polynomial.	SE/TE: 576-577, 578-579, 599, 600, 603, 606-609, 610-611, 613, 618, 620, 621, 625, 706-707, 734, 791, 819, 906, 946		
b.	Factor trinomials with integer coefficients of the form $x^2 + bx + c$.	SE/TE: 582, 583-585, 586-588, 592, 593-596, 596-599, 601-602, 603-604, 608, 610-611, 613, 618-620, 621, 622-623, 643, 647, 668, 683, 706-707, 716, 726, 734, 791, 819, 906, 946		
c.	Factor the difference of two squares and perfect square trinomials.	SE/TE: 600-602, 603-605, 608, 610-611, 613, 620, 621, 625, 668, 706, 716, 726, 734, 791, 819, 906, 946		
Objective 3.5: Solve quadratic equations using factoring or by taking square roots.				
a.	Solve quadratic equations that can be simplified to the form $x^2 = a$ where $a \geq 0$ by taking square roots.	SE/TE: 642, 652-654, 655-658, 676, 698, 701, 707, 726, 734, 819, 947		
b.	Solve quadratic equations using factoring.	SE/TE: 575-577, 578-579, 585, 586, 588-589, 591, 595-596, 597, 599, 602, 603, 605, 613, 618-619, 621, 643, 649, 659, 667-668, 683, 701, 707, 726, 734, 906, 946		
c.	Write a quadratic equation when given the solutions.	SE/TE: <i>The opportunity to address this standard can be found on the following pages.</i> 585, 595-596, 602, 608-609, 643		

STANDARD IV: Students will understand concepts from statistics and apply statistical methods to solve problems.				
Percentage of coverage in the <i>student and teacher edition</i> for Standard IV: <u>100 %</u>		Percentage of coverage not in student or teacher edition, but covered in the <i>ancillary material</i> for Standard IV: <u>N/A %</u>		
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Objective 4.1: Summarize, display and analyze bivariate data.				
a.	Collect, record, organize and display a set of data with at least two variables.	SE/TE: 42, 334, 342		
b.	Determine whether the relationship between two variables is approximately linear or non-linear by examination of a scatter plot.	SE/TE: 325, 328-329, 339, 344, 686-687, 688-690, 691, 692-693, 694, 700-701		
c.	Characterize the relationship between two linear related variables as having positive, negative, or approximately zero correlation.	SE/TE: 325-328, 328-331, 333, 341, 343, 348, 734		
Objective 4.2: Estimate, interpret and use lines fit to bivariate data.				
a.	Estimate the equation of a line of best fit to make and test conjectures.	SE/TE: 327, 328-331, 332-333, 334, 335-337, 338-341, 342, 343, 348, 349, 352-353, 485, 734, 790, 942		
b.	Interpret the slope and y-intercept of a line through data.	SE/TE: 328, 330-331, 334, 343, 349, 352-353		
c.	Predict y-values for given x-values when appropriate using a line fitted to bivariate numerical data.	SE/TE: 334, 35-338, 338-341, 342, 343, 348, 349, 352, 485, 942		